

PROPOSED AMENDMENT - NOT FOR ENTRY

Application No.: 10/006,896

4

Docket No.: 8733.066.20-US

AMENDMENTS TO THE CLAIMS:

1-12 (canceled)

13. (Previously Presented) A method for manufacturing a pixel element of a liquid crystal display device, comprising the steps of:

providing a substrate;

forming a first layer with an organic material over the substrate;

treating at least part of the first layer with plasma containing hydrogen to form an intermediate layer; and

forming a second layer over the intermediate layer, whereby plasma treatment with hydrogen provides improved adhesion of the organic layer and the second layer.

14. (Currently Amended) A The method of claim 13, wherein the first layer comprises at least one of Bezocyclobutene (BCB), Flourinated polyimide; Teflon; Cytop and Acrylic Resin.

15. (Currently Amended) A The method of claim 13, wherein the second layer comprises at least one of indium tin oxide (ITO), silicon nitride (SiNx) and silicon Oxide (SiOx).

(X-ray SiH)

inorganic

*has no
H₂ bond, structure*

*prop
n x m
spec.*

PROPOSED AMENDMENT - NOT FOR ENTRY

Application No.: 10/006,896

5

Docket No.: 8733.066.20-US

16. (Currently Amended) A method of ~~claim 13~~, for manufacturing a pixel element of a liquid crystal display device, comprising the steps of:

providing a substrate;

forming a first layer with an organic material over the substrate;

treating at least part of the first layer with plasma containing hydrogen to form an intermediate layer; and

forming a second layer over the intermediate layer;

further comprising a step of forming an additional intermediate layer by treating the first layer with plasma containing at least one of oxygen and argon between the first layer and the intermediate layer.

17. (Currently Amended) A method of ~~claim 13~~, for manufacturing a pixel element of a liquid crystal display device, comprising the steps of:

providing a substrate;

forming a first layer with an organic material over the substrate;

treating at least part of the first layer with plasma containing hydrogen to form an intermediate layer; and

forming a second layer over the intermediate layer;

PROPOSED AMENDMENT - NOT FOR ENTRY

Application No.: 10/006,896

6

Docket No.: 8733.066.20-US

further comprising a step of forming an additional intermediate layer by treating the intermediate layer with plasma containing at least one of oxygen and argon between the intermediate layer and the second layer.

18. (Currently Amended) A The method of claim 13, wherein the first layer includes an organic material and the second layer includes an inorganic material.

19. (canceled)

20. (Currently Amended) A The method of claim 13, further comprising a step of treating the surface of the organic layer with plasma containing at least one of oxygen and argon after treating with plasma containing hydrogen.

21. (Currently Amended) A method of manufacturing a liquid crystal display device, comprising the steps of:

providing a substrate;

fabricating a switching element formed on the substrate, the switching element having at least one electrode;

forming an organic layer covering at least part of the substrate having the switching element;

PROPOSED AMENDMENT - NOT FOR ENTRY

Application No.: 10/006,896

7

Docket No.: 8733.066.20-US

treating at least a portion of the organic layer with plasma containing hydrogen to provide an intermediate layer;

exposing the at least one electrode of the switching element by removing at least a portion of the organic layer and the intermediate layer covering the electrode; and

forming an inorganic layer connected to the at least one electrode on the intermediate layer, whereby plasma treatment with hydrogen provides improved adhesion of the organic layer and the inorganic layer.

22. (Currently Amended) ~~A~~ The method of claim 21, wherein the organic layer comprises at least one of Bexocyclobutene (BCB), Flourinated polyimide, Teflon, Cytop and Acrylic Resin.

23. (Currently Amended) ~~A~~ The method of claim 21, wherein the inorganic layer is a conductive layer.

24. (Currently Amended) ~~A~~ The method of claim 23, wherein the conductive layer comprises Indium Tin Oxide.

25. (canceled)

PROPOSED AMENDMENT - NOT FOR ENTRY

Application No.: 10/006,896

8

Docket No.: 8733.066.20-US

26. (Currently Amended) A method ~~of claim 23~~, method of manufacturing a liquid crystal display device, comprising the steps of:

providing a substrate;

fabricating a switching element formed on the substrate, the switching element having at least one electrode;

forming an organic layer covering at least part of the substrate having the switching element;

treating at least a portion of the organic layer with plasma containing hydrogen to provide an intermediate layer;

exposing the at least one electrode of the switching element by removing at least a portion of the organic layer and the intermediate layer covering the electrode; and

forming an inorganic layer connected to the at least one electrode on the intermediate layer;

wherein the inorganic layer is a conductive layer

further comprising a step of treating the surface of the organic layer with plasma containing at least one of oxygen and argon after treating with plasma containing hydrogen.

27. (Currently Amended) A The method of claim 23, wherein the treating the organic layer with plasma containing hydrogen before the contact hole is formed.

28. (canceled)

PROPOSED AMENDMENT - NOT FOR ENTRY

Application No.: 10/006,896

9

Docket No.: 8733.066.20-US